October 4, 1984

Dr. William J. Gartland
Executive Secretary, RAC
Building 31, Room 3B10
National Institutes of Health
Bethesda, MD 20205

Dear Bill:

I write to express my opposition to the proposed amendments to the NIH Guidelines submitted by Jeremy Rifkin. Everything I know about biology and about the history of science leads me to believe that his stated reasons in favor of these amendments are specious and irrational, both as science and as public policy. Perhaps the most disturbing aspect of his proposal is that it will confuse and mislead the American public about current science and the policies governing research. History, from Galileo through Lysenko, teaches us that mysticism can never yield rational and wise public policy in scientific matters. Yet mysticism is the basis of Mr. Rifkin's proposal.

The notion that a species has a telos (a purpose) contravenes everything we know about biology. Species can have, and many in the past have had a telos (an end), namely extinction. That is the only telos known to exist. No species we know of has a fixed genome. Quite the contrary. Genetic studies throughout this century have again and again confirmed that the genetic make-up of organisms within a species is continually changing through recombination, mutation, deletion, duplication, rearrangement and insertion of DNA sequences. Recent experiments have, if anything, shown us that this remarkable plasticity is more extensive than we imagined and is a fundamental property of living matter. Living things are changeable, not fixed. Furthermore, this attribute of living systems is confirmed by the large number of structural variants of specific genes that exist in normal individuals — including humans. Thus the proposals seem to be aimed at preserving something which does not exist.

I do agree with one of Mr. Rifkin's aims. There is presently no reason to consider inserting foreign genes into the germ lines of humans. We need to gather a great deal more scientific evidence before we will know whether such procedures will ever be useful to alleviate or eliminate genetic disease. We need an enormous amount of experimentation to determine whether such procedures are even feasible. In the meanwhile, a variety of more effective or simpler alternatives for treating such diseases may emerge. There is plenty of time for wide societal discussion of all aspects of the possibilities. The report of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research represents the deeply considered views of an excellent group of independent citizens; a copy is attached and I request that it be included in the file of comments on the proposal. Its serious approach provides a good starting place for public discussion. However, contrary to the proposal, the report's content suggests that we have no need to consider prohibitions, with all their negative consequences. The NIH Guidelines and the current regulations regarding human experimentation already provide strict safeguards against premature and ill-considered attempts at modifications of human germ lines.

Sincerely,

Maxine Singer